What is claimed is:

1. An electron beam treatment apparatus that includes:

an array of lamps that output radiation;

a support mechanism adapted to support a substrate at a treatment position above the lamps; and

a lamp heat shield, disposed above the array, having a radiation absorption portion adapted to absorb radiation from at least a portion of the array, and a radiation reflection portion adapted to reflect radiation from at least a portion of the array towards the substrate when disposed at the treatment position.

2. The apparatus of claim 1 wherein the radiation absorption portion is planar and is disposed substantially parallel to a plane of the substrate when disposed at the treatment position.

3. The apparatus of claim 2 wherein a reflecting surface of the radiation reflection portion is positioned to reflect radiation and is disposed at an angle with respect to a perpendicular to the plane of the radiation adsorption portion.

4. The apparatus of claim 3 wherein an absorbing surface of the radiation absorption portion is positioned to absorb radiation and has grooves formed therein.

5. The apparatus of claim 4 wherein the absorbing surface is bead blasted.

6. The apparatus of claim 5 wherein the grooves are circular grooves.

7. The apparatus of claim 3 wherein the reflecting surface has a mirror-like finish.

8. The apparatus of claim 1 wherein the lamp shield is fabricated from aluminum.

9. The apparatus of claim 1 wherein the lamp shield is fabricated from one or more of a metal, quartz, and ceramic.

10. The apparatus of claim 3 wherein the angle is about 50°.

11. The apparatus of claim 3 wherein the reflecting surface has a reflectivity of about 90%.

12. A lamp heat shield useful in an electron beam treatment apparatus which comprises:

a radiation absorption portion adapted to absorb radiation from at least a portion of an array of lamps disposed below the shield; and

a radiation reflection portion adapted to reflect radiation from at least a portion of the array towards an object disposed within the radiation reflection portion.